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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/263,440	03/05/1999	BYUNG-SEOK RYU	678-231-P863	1816

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PAUL J FARRELL  
DILWORTH AND BARRESE  
333 EARLS OVINGTON BOULEVARD  
UNIONDALE, NY 44553

EXAMINER

KNEPPER, DAVID D

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/263,440

Applicant(s)

RYU, BYUNG-SEOK

Examiner

David D. Knepper

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. Applicant's correspondence filed on 25 March 2002 has been received and considered. Claims 1-10 are pending.

#### **Refund Request**

2. The applicant's request for a refund appears to be in error. The USPTO delay was only one month. The applicant delayed 3 months before responding to the Final Office Action mailed 24 Sep 2001 and then the applicant delayed one month before responding to the Advisory Action mailed 21 Feb 2002. The applicant then delayed asking for a refund for another 6 months, waiting until 14 August 2002 before asking for the extension of time fee of \$920 (paid 25 March 2002) to be refunded.

#### **Claims**

3. The applicant's change addresses patentability issues under clarity (35 USC 112) despite the arguments to the contrary. The changes made confirm that the applicant is deliberately presenting broad claims. The rejection is thereby overcome.
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 5-10 are rejected under 35 U.S.C. § 103 as being unpatentable over Gerson (4,870,686) in view of Kikinis (5,799,067) and Schwelb (5,950,123).

As per claims 1 and 8, “synthesizing speech” is taught by Gerson in figure 1, with his speech synthesizer 130:

“handset circuitry” (inherent in any telephone such as Gerson’s speaker phone 150 – see column 4, lines 16-30 where he lists various telephone related applications for his invention – see also Kikinis, figures 1-4);

“hands free kit circuitry” (his hands-free user-interactive operation, col. 4, lines 28-29 – see also Kikinis, figures 1-4); and

“short message calling signal is generated upon input by the user of a predetermined voice command” (his speech synthesizer 130 can translate data into user-recognized speech . . . when a user-spoken utterance corresponds to a predefined command keyword, col. 5, lines 22-27 – see also column 5, lines 4-23 which indicate that it is obvious to use spoken commands to control any desired phone related communications).

It is noted that Gerson does not explicitly use the terminology “short message”. However, he indicates that his synthesizer can handle any normal reply function (col. 5, lines 34-43). Kikinis teaches in column 23, lines 63-65 that his voice recognition system may prompt other command routines within the master applications as well. He teaches that it is well known to handle short messages over a cellular telephone network and that short messages such as a page (col. 22, lines 26-27) can be sent to a cellular telephone. Kikinis further teaches that such

combination systems of speech recognition, computers and telephone technologies can be accomplished in modular form making it easy to change the functionality as needed by the user (see abstract). Schwelb is cited for further evidence of obviousness through his teaching of a short message service (SMS), col. 2, lines 54-55 and column 3, lines 1-22 which combines the short message service with a voice synthesizer. This teaches that it is well known to transmit short messages through a wireless telephone system which is combined with speech synthesis.

It would have been obvious for a person having ordinary skill in the art at the time the invention was made, to combine Kikinis and Schwelb with Gerson because all the references teach that it is well known to combine speech signal processing functions, computers and telephone related technologies. Kikinis teaches that it is desirable to allow functions to be added or modified using electronic modules to allow handling of various messages as noted above. Schwelb teaches that it is known to allow speech synthesis of short messages using a combination of computer, telephone and speech processing technologies. Therefore, it would have been obvious to combine the flexible modular functions of Kikinis and the short messaging of Schwelb noted above with the system of Gerson because Gerson teaches that it is well known to combine speech recognition, speech synthesis and cellular telephone technologies in his figure 1 as noted above.

Claim 5, 6, 9 and 10: "Generating an alarm" is inherent for telephone and pagers which either ring or vibrate to signal the user.

The use of a "sound synthesis command" is obvious in view of the speech commands of Gerson (see abstract) and Kikinis (column 23, lines 63-65) that may prompt other command routines.

See also Schwelb (col. 3, lines 1-10) where he teaches after confirmation, synthesizing the text message is taught in col. 3, lines 11-22 (i.e. – his text-to-voice translation function to synthesize an audible announcement from the contents of a received textual data message).

Claim 7: Handshaking to determine whether or not a message is transmitted or received is inherent in a form of pager. See, for example, Schwelb, column 3, lines 1-10 where he indicates that the message will be stored until delivery can be confirmed (as long as delivery fails, the message is stored). Therefore, the prior art teaches that it is critical to be able to keep track of whether or not a message is transmitted to the intended recipient, as one of ordinary skill in the art of messaging would expect.

6. Claims 2 and 3 are rejected under 35 U.S.C. § 103 as being unpatentable over Gerson in view of Kikinis and Schwelb as applied to claims 1 and 5-10 above, further in view of Klatt (Review of text-to-speech conversion for English).

It is noted that Gerson, Kikinis and Schwelb do not teach details of speech-to-text synthesis. Klatt teaches the state of the art for speech synthesis in 1987. Therefore, it would have been obvious to incorporate the notoriously well known speech synthesis techniques into any synthesizer developed after those discussed in Klatt.

Claims 2: “sound elements” (Klatt’s phonemes);

“dictionary” (Klatt’s phonemic dictionary, page 767);

“sentence analyzer...grammatical information” (Klatt’s syntactic and semantic analyses, pages 773-774);

“speech synthesizer...transferring said audio signals to a speaker...and a control unit” are inherent in the use of a synthesizer unit already covered by Gerson.

7. Claim 4 is rejected under 35 U.S.C. § 103 as being unpatentable over Gerson in view of Kikinis, Schwelb and Klatt (Review of text-to-speech conversion for English) as applied to claim 2 above, further in view of Marui (4,959,850).

It is noted that Gerson, Kikinis, Schwelb and Klatt do not teach the use of “an echo canceller for eliminating reflective noises.” Any one of pedestrian skill in the art knows that an echo canceller removes reflective noises (echoes). The use of such a device is notoriously well known in any telephone environment. See, for example, the echo canceller 415 taught by Marui in figure 7. It would have been obvious to use an echo canceller to remove unwanted noise as taught by Marui. The combination with Schwelb and Peterson is considered obvious because they are in the same field which is the use of wireless telephone communications. Klatt is relied upon for the details of speech synthesis as noted above and is combinable to as previously noted.

#### **REMARKS**

8. The applicant argues that the use of a separate “hands-free kit” and “handset” is not shown to implement the functionality that was otherwise shown in the prior art previously applied against the claims. Rather than take Official Notice of these trivial details, the examiner has elected to apply new art that clearly shows that these elements are well known to those of ordinary skill in the art of wireless communications.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

TC2600 Fax Center  
(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

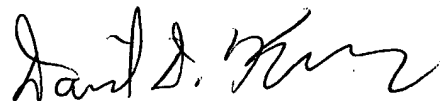
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644.

The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached on (703) 305-4379.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service at (703) 306-0377.

The facsimile number for TC 2600 is (703) 872-9314.



David D. Knepper  
Primary Examiner  
Art Unit 2654